

National Institute for Rocket Propulsion Systems (NIRPS)

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The Challenges Before Us

- Over 30 industrial base studies and assessments have been completed over the past decade that highlight the challenges facing the propulsion community
- Common problematic themes:
 - Budget constraints driving acquisition programs to rely on existing hardware, leading to a lack of development programs to sustain workforce and supplier bases.
 - Lack of coordination of acquisition strategies across the US Government (civil and military).

The Challenges are Known – Now is the Time to Develop and Employ Solutions

Space Policy: Collaboration

- “Departments and agencies shall improve their partnerships through **cooperation, collaboration, information sharing, and/or alignment of common pursuits**. Departments and agencies shall make their capabilities and expertise available to each other to strengthen our ability to achieve national goals,”
National Space Policy June 28, 2010
- “We seek to foster a U.S. space industrial base that is robust, competitive, flexible, healthy, and delivers reliable space capabilities on time and on budget. DoD and the IC [Intelligence Community], in concert with the civil space sector, **will better manage investments across portfolios to ensure the industrial base can sustain those critical technologies and skills** that produce the systems we require.
National Security Space Strategy (Unclassified Summary) January 2011

Integrated Government Response directed by Space Policy.

NIRPS: A Responsive Solution

Scope:

National
Multi-organizational
Multi-sector

Purpose:

NIRPS will help preserve and align government and private rocket propulsion capabilities to meet present and future US commercial, civil, and defense needs, while providing authoritative insight and recommendations to National decisional authorities

Tri-faceted approach:

- **Stewardship:** Formulate and recommend National Policy options and strategies that promote a healthy industrial base
- **Technology:** Identify technology needs and recommend technology insertions
- **Solutions facilitator:** Maintain relationships and awareness across the Government and industry to align available capacity with emerging demand

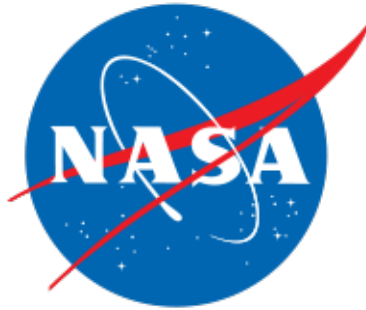
A Jointly Created and Sponsored Institute Providing Coherent Policy Recommendations to National Decision Authorities

Shared Government Objectives

- Resilient and thriving industrial base
- Mitigation of risks (cost and technical) to mission success
- Maturation and certification of propulsion systems and components
- Lower the “transaction costs” of government-industry partnerships
- Minimization of national space transportation costs
- Leveraging of technology investments across the USG

NIRPS will Employ a Small Staff to Integrate and Coordinate the Nation's Propulsion Capabilities and Investments to Achieve National Objectives

NIRPS: A Collaborative Solution



Summary

- NIRPS is a responsive solution to the current needs of Nation and the direction of the National Space Policy
- NIRPS will leverage the capabilities of the entire industry
- NIRPS is a distributed and low-cost solution for NASA and other Government Departments & Agencies

A Credible National Resource that is Consistent with our Nation's Space Policy